

"Students' personality in Environmental Model based on students' Attitude, LOC and Personal Responsibility"

Damianus Daikoban¹, *I Made Putrawan², Diana Vivanti S.³

¹Doctoral Student, State University of Jakarta, Indonesia, Email: damianusdaikoban@gmail.com

²Professor at State University of Jakarta, Indonesia, Email: putrawan.imade@yahoo.com

³Associate Professor at State University of Jakarta, Indonesia, Email: dianavivanti@yahoo.com

*Corresponding author: putrawan.imade@yahoo.com

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Abstract:

If people environmental behavior would be build positively, the role of personality should be considered. Therefore, what factors scientifically supposed to be related to personality in environmental setting was the objective of this research. A non-causal survey method used by selecting randomly 120 primary school students, in Jakarta. There were four instruments developed for measuring personality (big-5 personality) with reability was .796, students attitude toward environment (.561), LOC (.602) and personal responsibility (.861). Data analyzed by regression and correlation. The research results revealed that all three of independent variables (attitude, LOC and personal responsibility) correlated positively and significantly with students' personality, especially after tested by using second-order correlation. The variable personal responsibiliy was the greatest contributor to students personality variance. Changing students environmental behavior would be influnced by personality, therefore those three factors could be taken into account when students' personality would be build to be more positive toward the environment.

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Introduction

Rapid population growth, human activities that tend to be destructive and unwise development have a negative impact on the environment, not only damaging natural resources but also as a result of human activities to meet their daily needs lead to environmental pollution. The issue of damage to natural resources and environmental pollution does not only cover regional or national issues but becomes a global problem. Interaction between

humans and the natural environment has occurred since human existence on earth. If the interaction between humans and nature is good, it will not cause problems for humans. Nature supports all human life, but conversely if humans explore and exploit nature, problems arise that harm humans due to destructive human behavior.

But before someone determines his/her behavior on the environment, personality factors have big roles to determine one's intention to act. According to Colquit, Lepine

and Wesson (2009)⁴, personality is a collection of certain traits in an individual. Personality is defined as the accuracy of characteristics of someone who is relatively stable in responding and interacting with other people and their environment.

Based on Jawwad, et. al (2014)¹¹, individual traits can be understood as a description of a person based on different psychological (psychological) factors. There are five basic studies in a person's personality, namely the big five personality which includes dimensions of conscientiousness, extraversion, neuroticism, agreeableness and openness. The five personality traits can be measured through indicators: Conscientiousness (reliable, well-organized, trustworthy, target-oriented, diligent and persistent); Agreeableness (manner, like to work together, tolerant, polite and affectionate); Neuroticism (anxious, dour, temperament, alert, restless, irritable); Openness (inquisitive, delusional, creative, inferior, polite, smart); and

Extraversion (talkative, sociable, passionate, resolute, brave, powerful)(Putrawan, 2014)²³.

So the personality of the environment is the characteristics or characteristics of a person who is relatively stable in responding and reacting and interacting with others or the environment and that distinguishes one another based on 5 factors, namely conscientiousness, agreeableness, neuroticism, openness, extraversion in achieving environmental sustainability.

To develop personality, Hines (1986/1987), developed a concept of responsible environmental behavior (REB), in which its concept can be observed various factors that affect one's personality such as attitude towards environment, LoCand responsibility (Ajzen, 2002)¹⁰. For more details can be seen through the image below:

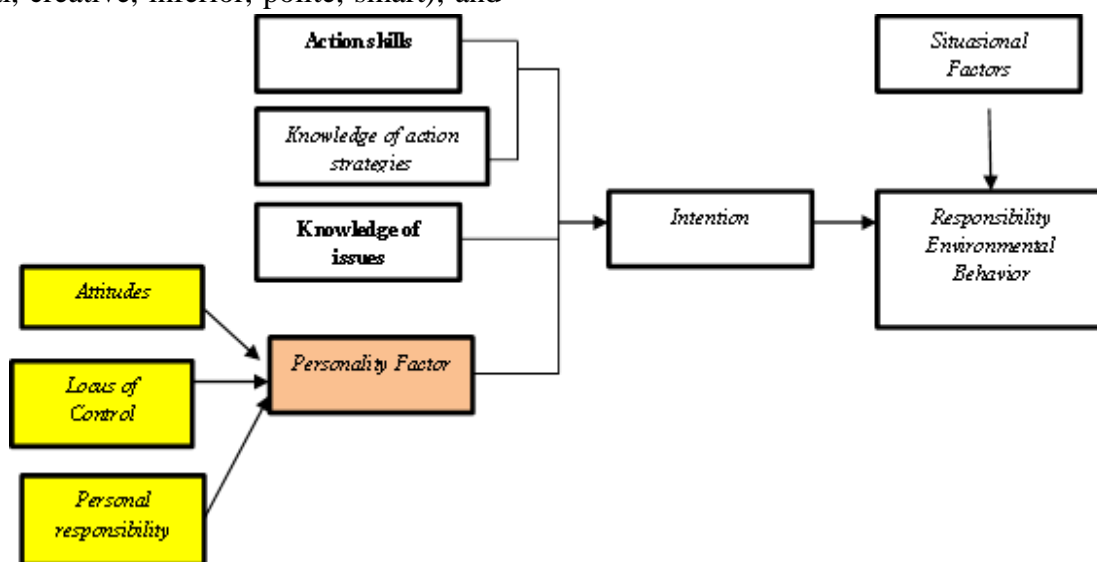


Figure 1. Hines Model related to Factors Affecting Personality (Putrawan,2014)²³

Based on the model above, it can be seen that predictors of personality variables include attitude, LOC, and personal responsibility. Ajzen (2002)¹⁰ defines an attitude as a positive or negative belief to display a certain behavior. Another definition of Fang et al (2006)¹³ related to environmental attitudes is a person's

consideration of values to protect the environment which touches each individual's cognitive assessment of environmental protection. Based on the definitions from the experts above it can be concluded that the attitude towards the environment is one's disposition before acting (pre-disposition to act)

towards the environment based on dimensions such as knowledge, feeling, and action tendency.

Baron et al (1991)¹ state that locus of control is one aspect of personality characteristics possessed by each individual, influencing his expectations and behavior in dealing with the environment. Every human behavior is influenced by the perception of the results achieved, which can be a reinforcing or weakening factor for behavior and on the other hand. But regarding the principle of LoC was initially developed by Rotter (1996)²⁴, who stated that LoC is part of the personality variables that is assumed as an individual's faith in being able to look after one's own fate. Personals who have the faith that destiny or events in their lives under their authorization are stated to be individuals who have an internal locus of control.

In addition to attitude and loc, a factor related to one's personality is personal responsibility. Hergenhahn and Olson (2005)⁹ define personal responsibility as the responsibility that exists for each individual who makes him responsible for actions, emotions and behavior. Personal responsibility will encourage individuals in carrying out the tasks given, in other words that the failure or success of the task is related to internal factors and not external factors. So personal responsibility is a psychological construct that is understood as a complex abstraction which includes the uniqueness of one's genetic background, learning outcomes including the process of how a person is influenced by his environment. Personal responsibility towards the environment can be synthesized into a

conceptual feeling that is someone's feelings in taking responsibility for actions, without expecting and denouncing what has been done in relation to various environmental issues with the aim of protecting the environment sustainably.

The state of the art in this study actually concerns about new or contemporary issues related to the development of a science and is influenced by the times in which the knowledge is felt. Therefore, the state of the art on the research topic is related to presence or absence of personality correlation by various factors including, attitudes to the environment, LoC, and responsibility based on Hines concept (1986/1987). The originality of this research is the emphasis on the use of the term personality based on maturation of the Big Five Personality dimension (conscientiousness, agreeableness, neuroticism, openness, extraversion) to achieve sustainable development goals. .

Methodology

In this study, the objective to be achieved is to obtain information on whether there is a correlation between participants' attitude to the environment, locus of control and personal responsibility with students' personality. This study was tailored on a number of high school students in the city of East Jakarta. The method used is a survey with correlational techniques. This research is concerned with collecting data to determine whether there is a correlation between variables and how much strength the correlation has (correlation coefficient). The correlation between research variables can be seen in the following figure:

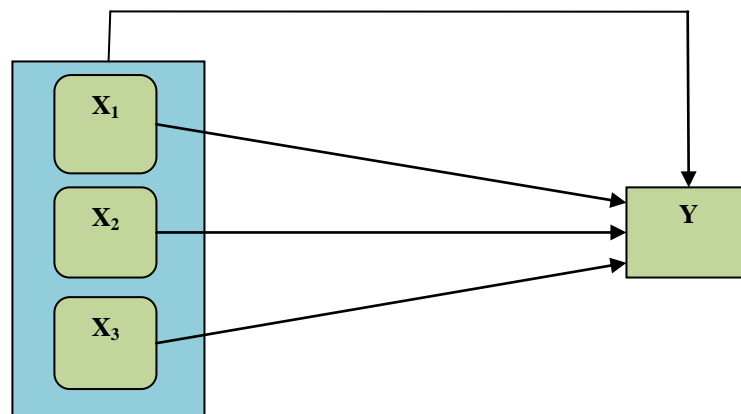


Figure 2. Research Constellation

Note : X1 = Student attitudes towards the environment

X2 = Locus of Control

X3 = Personal Responsibility

X4 = Personality

There are four instruments in this study that are arranged based on a theoretical framework and confirmed in the form of conceptual and operational definitions. The instruments used were to measure the personality of the environment (22 items rel. 796), students' attitudes towards the environment (29 item rel. 561), LoC (16 items rel. 602), and personal responsibility (30 item rel. 861). The population of this study was all high school pupils in DKI Province. The sampling technique was using multistage random sampling involving 120 high school students as research samples. Data analysis technique is to use regression and correlation tests. Data analysis with descriptive statistics and inferential statistics. Previously performed the requirements analysis test, then followed the following steps: normality test using the Lilliefors test. Homogeneity test uses Bartlett. The illustration of the contribution of the independent variable to variations in the dependent variable is calculated by the value of

good of fit (R^2) or the determination index. The analysis program for processing data in research uses Excel software and SPSS Version 20.0 for Windows.

Research Findings and Discussion

This study involves four variables, namely personality (Y) as the dependent variable, while students' attitudes towards the environment (X1), Locus of Control (X2) and personal responsibility (X3) are independent variables. As the outcomes of the trial requirements show that all data groups are normally distributed and all data groups are homogeneous. The detailed of the outcomes of the analysis and trials of the research studies is defined in the following: From the analysis of the data it shows that the students' attitudes towards the environment have a positive and very significant correlation with the students' personality. The form of a positive correlation is shown through the regression equation $Y = 27.553 + .426X_1$ with $t_{count} > t_{table}$ and the strength of the correlation $r_{x1y} = .434$ with a determination coefficient of .181. This means that 3.27% of the personality variables can be explained by the variable attitude of students towards the environment. The test results are able to describe as follows:

Table 1.
Correlation Coefficient Test (r_{y1})

Sample	Correlation	Determination	t_{count}	t_{tabel}
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(n)	Coefficient (zero)	Coefficient		0,05	0,01
120	.434	.181	5,228**	1,98	2,61

** p< .01

Secondly there is significant correlation between the LoC with the students' personality. The form of the correlation is shown through the regression equation $Y = 56.591 + .730X_2$ with $t_{count} > t_{table}$ means the correlation coefficient between locus of control and personality is significant, and the strength of the correlation $r_{x_2y} = .150$ with a determination coefficient of .14. This means that only 1.96% of the personality variable can be explained by the locus of control.

Table 2.
Correlation Coefficient Test (r_{y_2})

Sample (n)	Correlation Coefficient (zero)	Determination Coefficient	t_{count}	$t_{table} = 0,20$
120	.150	.14	1.653 *	1.28

* p<.20

Third, there is a significant correlation between personal responsibility with personality. The form of a positive correlation is shown through the regression equation $Y = 31.680 + .377X_3$ with $t_{count} > t_{table}$ and the strength of the relationship $r_{x_3y} = .508$ with a coefficient of determination of .251. This means

that 6.30% of personality variables can be explained by personal responsibility variables. The test results are able to figure out as follows:

Table 3.
Correlation Coefficient Test (r_{y_3})

Sample (n)	Correlation Coefficient (zero)	Determination Coefficient	t_{count}	t_{table}	
				0,05	0,01
120	.508	.251	6.402 **	1.98	2.61

** p< .01

Fourth, there is a positive correlation between students' attitudes toward the environment, LoC, and personal responsibility together with personality. The form of a positive correlation is shown through the regression equation $Y = 17.941 + .186X_1 + .115X_2 + .283X_3$ with $t_{count} > t_{table}$ and the strength of the correlation $r_{y_{123}} = .529$ with a determination coefficient of .261. This means that 6.81% of the personality variables can be explained by the students' attitude variable towards the environment, LoC, and personal responsibility together. The test results are able to figure out as follows:

Table 4.
Correlation of student attitudes towards the environment, locus of control, and personal Responsibility together with personality ($R_{y_{123}}$)

Sample (n)	Correlation Coefficient (zero)	Determination Coefficient	F_{count}	F_{table}	
				0,05	0,01
120	.529	.261	14.992**	2.68	3.95

** p< .01

Based on data analysis shows: (1) The results of the first hypothesis testing indicate that students' attitudes towards the environment

are positively correlated and very significant to the personality, meaning that the positive a person's attitude to the environment, the

accurate the personality of the environment. (2) The results of the second hypothesis testing show that there is positive correlation between LoC with the students' personality, meaning that the more internal the LoC, the accurate personality will be. (3) The results of testing the third hypothesis show that personal responsibility is positively and highly significant correlated to personality, meaning that the higher one's responsibility towards the environment, the accurate the personality will be. (4) The results of the fourth hypothesis testing show there is a positive correlation between students' attitudes toward the environment, locus of control, and personal responsibility together with personality, meaning that the positive a person's attitude towards the environment, the more internal LoC, and the better personal responsibility, the accurate one's personality. These findings can be treasures that enrich scientific knowledge, especially about students' personality.

Otherwise if it is compared with the research investigating about students who have high personal responsibility, we could be tolerant and sensitivity with others, make up their own passions and the feeling of responsibility. The results are relevant to those proposed by Ernst et al. (2015)⁶, Mergler and Shield, (2016)¹⁸, and Wray-Lake et al (2010)²⁸ that students who have higher personal responsibility can develop sensitivity to others (including compassion, empathy and interpersonal skills) and the ability to apply learning throughout programs into wider life (e.g. schools, homes). Students who have higher personal responsibility can be independent participants, competent able to act wisely and appreciate more. According to (Cottrell, S. P. & Graefe, 1997)⁵; Mergler (2008)¹⁶; Mergler and Patton (2007)¹⁷; and Mergler and Shield (2016)¹⁸ students with higher personal responsibility are able to become confident individuals, more responsible and creative

desires including the ability to make rational and informed decisions about their lives and accept responsibility for their actions.

From the other side, Pan et al. (2018)²⁰, who argued that personal responsibility for the environment had an influence on one's desires which had an effect on the behavior of the environment itself. While Bowers, et al (2003)³ stated that the lay, uninformed response to the behavior of personality disordered patients may be particularly liable to be judgmental and negative, especially if no alternative perspective is provided.

Meanwhile regarding to the Correlational and SEM analyses, it was convinced that every part of personality traits components was fully related with EI, it was supporting H1. From the whole part, it supports that EI indicator is a personality character residing the smaller parts of the character pecking orders (Petrides, Pita & Kokkinaki, 2007)²¹. It informs us that perceptions of indicator EI are connected with entire of domain of personality. This indicates that perceptions of Trait EI forecast internal LoC. It is the initial examination of the connection thesetwo fundamental principles. Otherwise, as previous study has showed linked between LoC and Health (Botha, Cricketer & Pienaar J., 2006)², like what happens to indicator EI and Health (Mavroveli S., et al., 2007)¹⁴, probably no wonder to search a direct link between indicator EI and LoC.

Researchers have lately assigned to a specific scrutiny of the job of intervening predictors between personality traits with health (Greven C., et al., 2008)⁷. The research reported the expansion of which indicator EI and LoC played as intervening predictors. Entirely, the concept proper index and intervention diagnoses (Preacher K.J. & Hayes H.F., 2004)²² definitely denoted that those are intervening predictors.

This study has figured out the conducive part of intervening components in the trait and health correlation with geared of lack of experienced mediate researches (Manning, 1980¹⁵; Greven C., et al., 2008⁷; Smith T.W., 2006²⁶) there is a vivid necessity of next studies. The utilize of students as respondents might be perceived dilemma, provided intervening factors; LoC looms to have role detail. Otherwise, LoC was fledged become criterion of globalized evaluation faiths in the life design (Spector P.E., 1988)²⁷ and a control towards components expresses which inferring to generic fates in monitoring in the workplace, whether an expansion that the instruments are able to accomplish using a single unpresently exerted. As the summary, personal responsibility is something which is very important for the human life. This does not relate with what given to someone. That everybody should select their own responsibilities and determine attitude. It needs time to make distinguishes among us and the next days.

The current studies are appropriate with the triangular concept of responsibility defined by Schlenker et al. (1994)²⁵. Personal responsibility involves responsible environmental behavior to achieve the objective, which affluences by self evaluation (self-esteem), the result describes strong and significant connection between behaviors and achievements.

Based on the research of Ojedokun (2011)¹⁹, the findings summarized that altruism and LoC are significant mediates to attitude and responsible environmental behavior, tolerance, while attitude mediates the connection altruism and Responsible Environmental Behavior, and the connection between LoC and Responsible Environmental Behavior. It is therefore recommended that policy makers should have an attention on improvement of student attitude toward the environment, student characteristic

represented by LOC, and personal responsibility.

Conclusion

Based of this finding, it could be interpreted that the more positive student's attitude toward environment, the more internal of their LOC, and more higher their personal responsibility, the more accurate their personality would be. Therefore it could be concluded that if school system would like to improve the student's personality in interacting with environment, so those 3 factors, student's attitude, LOC, and personal responsibility could be taken into account, this conclusion as the policy implication that policy makers should an attention on improvement of student attitude toward the environment, student characteristic represented by LOC, and personal responsibility at the school curriculum with integrated into all of subject matters offered to all of student level.

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References

- [1] Baron, R. A. Motivation in work settings: Reflections on the core of organizational research. *Motivation and Emotion*, 15(1), 1-8, 1991.
- [2] Botha, C., & Pienaar, J. (2006). South African correctional official occupational stress: The role of psychological strengths. *Journal of Criminal Justice*, 34, 73-84.
- [3] Bowers, L & Allan, T. The Attitude to Personality Disorder Questionnaire: Psychometric Properties and Result. *Journal*

- of *Personality Disorder*, 20(3), 281-293, 2006.
- [4] Colquitt, LePine & Wesson. *Organizational Behavior*. New York: McGraw-Hill, 2009.
- [5] Cottrell, S. P. & Graefe, A.. Testing a conceptual framework of responsible environmental behavior. *The Journal of Environmental Education*, 29(1), 17-27, 1997.
- [6] Ernst, J., Blood, N., & Beery, T. Environmental action and student environmental leaders : exploring the influence of environmental attitudes, locus of control, and sense of personal responsibility. *Environmental Education Research*, 4622(September), 1-27, 2015.
- [7] Greven, C., Chamorro-Premuzic, T., Arceche, A., & Furnham, A.. A hierarchical integration of dispositional determinants of health in students: The big five, trait emotional intelligence and humour. *Personality and Individual Differences*, 44, 1962-1973, 2008
- [8] Gupta, A & Wani, M.A. Locus of Control and Big Five Personality Factors Among Lovely Professional University Students. *Indian Journal of Positive Psychology*, 9(4), 473-476, 2018.
- [9] Hergenhahn, B.R & Matthew H. Olson. *An introduction to theories of learning*. USA : Pearson Prentice Hall, 2005.
- [10] Icek, A. Perceived Behavioral Control, Self-Efficacy, Locus of Control, and The Theory of Planned Behavior. *Journal of Applied Social Psychology*, 32 (4), 179, 2002.
- [11] Ahmad, Jawwad, Muhammad Ather, & Husein. Impact of Big Five Personality Traits on Job Performance: Organizational Commitment as A Mediator. *Management Knowledge and Learning*, 572-574, 2014.
- [12] Johnson, S.J. & Batey, M., & Holdsworth, L. Personality and Health: The Mediating Role of Trait Emotional Intelligence and Work Locus of Control. *Personality and Individual Differences*, 47, 470-475, 2009.
- [13] Liu, F., Jamie, M., Jianyo, L., & Xiangping, L. English and Chinese? The Role of Consumer Ethnocentrism and Country of Origin in Chinese Attitudes towards Store Signs. *Australian Marketing Journal*, 14(2), 5-16, 2006.
- [14] Mavroveli, S., Petrides, K. V., Rieffe, C., & Bakker, F. Trait EI, psychological well-being and peer-rated social competence in adolescence. *The British Journal of Developmental Psychology*, 25, 263-275, 2007.
- [15] Manning, W. and Shirkey, E. Fluency and the aging process. In: *Aging: Communication Processes and disorders*, Beasley, D.S. and Davis, A.G. (ed.). New York: Grune & Stratton, 1980.
- [16] Mergler, A. (2008). *Personal responsibility: The creation, implementation and evaluation of a school-based program*. Queensland University of Technology. Retrieved from <https://eprints.qut.edu.au/16382/>
- [17] Mergler, A., & Patton, W. Adolescents talking about personal responsibility. *Journal of Student Wellbeing*, 1(1), 57-70, 2007.
- [18] Mergler, A., & Shield, P. Development of the personal responsibility scale for adolescents. *Journal of Adolescence*, 51, 50-57, 2016.
- [19] Ojedokun, A.O., Balogun, S.K. Psychosociocultural analysis of attitude towards littering in a Nigerian Urban City. *Ethiop. J. Environmental Studies Management*, 4 (1), 68-80, 2011.
- [20] Pan, S., Chou, J., Morrison, A. M., & Lin, M. Will the future be greener? The environmental behavioral intentions of university tourism students. *Sustainability*, 10(634), 1-17, 2018.

- [21] Petrides, K. V., Pita, R., & Kokkinaki, F. The location of trait EI in personality factor space. *British Journal of Psychology*, 98, 273–289, 2007.
- [22] Preacher, K. J., & Hayes, A. F. SPSS and SAS procedures for estimating indirect effects in simple mediation models. *Behavior Research Methods, Instruments and Computers*, 36(4), 717–731, 2004.
- [23] Putrawan, I.M. *Konsep-konsep Dasar Ekologi dalam Berbagai Aktivitas Lingkungan*. Bandung: Alfabeta, 2014.
- [24] Rotter, J.B. Generalized Expectancies for Internal Versus External Control of Reinforcement. *Psychological Monographs*, 1996.
- [25] Schlenker, B., Britt, T., Pennington, J., Murphy, R., & Doherty, K. (1994). The triangular model of responsibility. *Psychological Review*, 101, 632–652, 1994.
- [26] Smith, T. W. Personality as risk and resilience in physical health. *Current Directions in Psychological Science*, 15, 227–231, 2006
- [27] Spector, P. E. Development of the work locus of control scale. *Journal of Occupational Psychology*, 61, 335–340, 1998.
- [28] Wray-Lake, L., Flanagan, C. a, & Osgood, D. W. Examining trends in adolescent environmental attitudes, beliefs, and behaviors across three decades. *Environment and Behavior*, 42(1), 61–85, 2010.